

A1
Amended

28. (Amended) A method as set forth in claim 18 including the step of learning vehicle characteristics unique to vehicle type and size by using a neural network.

Sub B3

29. (New) A system as set forth in claim 1 wherein said at least one modifier sensor includes a child seat sensor for identifying whether a child seat is forward or rearward facing.

30. (New) A system as set forth in claim 15 wherein said child seat sensor identifies whether said child seat is forward or rearward facing and said child seat position signal is generated based on a combination of forward or rearward identification of said child seat and proper installation of said child seat within said predetermined area.

A2
Sub B4

31. (New) A method as set forth in claim 18 including the step of generating a child seat position signal indicating whether a child seat is installed in a forward or rearward facing position.

Sub D2

32. (New) A method as set forth in claim 19 wherein step (a) is performed prior to step (b).

33. (New) A system as set forth in claim 10 wherein said pre-collision signal is generated based on at least vehicle speed and braking characteristics occurring prior to a collision event.

34. (New) A system as set forth in claim 15 wherein said pre-collision signal is generated based on at least vehicle speed and braking characteristics occurring prior to a collision event.

35. (New) A method as set forth in claim 26 wherein step (c) further includes generating the pre-collision signal based on at least vehicle speed and braking characteristics prior to a collision event.

36. (New) A system as set forth in claim 1 wherein said processing unit includes a network capable of learning various vehicle characteristics unique to vehicle type and size and adapting said output signal to account for different vehicle types.

37. (New) A system as set forth in claim 36 wherein said network is capable of learning passenger compartment size.

38. (New) A system as set forth in claim 15 wherein said processing unit is installable within multiple vehicle types having different passenger compartment sizes and includes a network capable of identifying specific passenger compartment sizes upon installation.

39. (New) A method as set forth in claim 18 further including the steps of installing a common processing unit in multiple vehicle types having different passenger compartment sizes and identifying a specific passenger compartment size after installation prior to step (a).

40. (New) A method as set forth in claim 39 further including the steps of modifying the output signal based on the specific passenger compartment size.

A2
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